ATTACHMENT A

to OC staff mtg notice 10/01/84

ITEM OF INTEREST

PRINTING AND PHOTOGRAPHY DIVISION
PLANT LOADING

The Office of Logistics, Printing and Photography Division (OL/P&PD) began using an in-house developed Management Information System (MIS) in July, 1984. This system operates on the NOMAD2 Data Base Management System software accessed through the Agency's VM System. The initial system contained an Inventory Management module, a Job Tracking module, and a Production Posting module. These modules allowed P&PD to keep track of their inventory and to track printing and photography jobs through the plant on their way to completion. P&PD was also able to generate monthly Division Production Reports and Resource Allocation Reports from the MIS, and the system appeared to be doing a good job of keeping track of things as they happened. After gaining familiarity with the new system, the next logical question was "Why can't the system tell us where our production bottlenecks are, and where we are not using equipment and manpower to the maximum?" This question spawned the development of the Plant Loading Module.

Plant Loading does NOT refer to the Division's Christmas Party, but defines a method where printing and photographic jobs are scheduled into the various production elements within the Division, and the estimated time to perform a defined task is decremented from available time. The first step in developing the Plant Loading capability was to determine the availability of resources, both people and machines, in each production element. This was achieved by determining the average "daily manpower availability" using the current staffing complement and subtracting leave and administrative time. After calculating this figure, we then applied production data resident in the MIS and productivity figures available from commercial sources to determine our capabilities to perform certain critical tasks. These tasks are referred to as Load Points, and we developed seventeen of them, taking into consideration all tasks involved in a typical printing job (composition, layout, platemaking, printing and finishing). These load points and their corresponding load factors (available minutes) were then loaded into the MIS. As a job is received in the Production Planning Staff, it is logged into the MIS and scheduled into each applicable load point. The amount of time estimated to complete a task is decremented from available time for that task for a given day. As a job is processed through the plant, it is logged into and out of the various production areas. When a job is logged out by a production element, its loading information is removed from the Load Module and leaves available time to perform additional work. It was determined that we would try to load each point to 70% of capacity in order to leave room for daily overnight rush jobs. The system informs the Planner/Scheduler when this 70% threshold has been penetrated, and informs the Planner/Scheduler of the percentage of capacity that has been loaded if it is in excess of 70%.

The Plant Loading module was tested in September and reports were designed to tell us how much work is scheduled for the various load points

for a given day or range of days, including any backlog of work. These reports show us the scheduled date, the amount of work to be performed, the time estimated to complete this work, and the percentage of capacity we have reached. With this information, we can now plan future work and provide a more accurate scheduled completion date to our customers.

In summary, Plant Loading will give us the ability to monitor each production element for maximum utilization of resources, and provide the information needed to maintain a constant workflow throughout the plant. With this new tool we expect to achieve improved customer relations by providing the services our customers expect in a realistic time frame.